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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,672	11/25/2003	Alexander Novakovsky	P-5667-US	6254
27130	7590	11/02/2005	EXAMINER	
EITAN, PEARL, LATZER & COHEN ZEDEK LLP 10 ROCKEFELLER PLAZA, SUITE 1001 NEW YORK, NY 10020			TO, TUYEN P	
			ART UNIT	PAPER NUMBER
			2825	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,672

Applicant(s)

NOVAKOVSKY ET AL.

Examiner

Tuyen To

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☒ Claim(s) 1-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/01/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is a response to the communication filed on 11/25/2003. Claims 1-42 are pending.

Claim Objections

1. **Claims 1, 19, and 37** are objected to because the preamble must state the application/purpose/intended of use. Correction is required.
2. **Claims 12 and 30** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.
3. **Claims 2-18, 20-36, and 38-39** are objected because they depend on the above objected claims.

Drawings

The drawings are objected to because in Fig.2, elements 211 and 221, the lines that indicating the loops are broken. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Novakovsky et al. (Novakovsky) entitled High Capacity and Automatic Functional Extraction Tool for

Industrial VLSI Circuit Designs (Computer Aided Design, 2002. ICCAD 2002. IEEE/ACM International Conference on 10-14 Nov. 2002 Page(s): 520 – 525).

Referring to claim 1 and similarly recited claims 19, 37, and 40, Novakovsky discloses a method comprising:

in a processor, finding a loop in a circuit design (p. 522; section 6, lines 8-10; section 6.1);

in the processor, functionally analyzing the loop (p. 522; section 6, lines 8-10; p.522-523, section 6.2); and

in the processor, extracting a logical element in relation to the analysis result (p. 522; section 6, lines 8-10; p. 523, section 6.3).

Referring to claim 2 and similarly recited claim 20, Novakovsky discloses the method of claim 1, comprising performing a Depth First Search linear traversal (p. 522; section 6, lines 8-10; section 6.1).

Referring to claim 3 and similarly recited claims 21, 38, and 41, Novakovsky discloses the method of claim 1, comprising identifying a group of at least one Channel Connected Sub-Network that forms at least one combinational loop and corresponds to a functional device (p. 522; section 6, lines 8-10; section 6.1, “CCSN”).

Referring to claim 4 and similarly recited claim 22, Novakovsky discloses the method of claim 3, comprising generating overall zero-delay collapsed functionality on an output of said group (p.521-522, section 4; p. 523, section 6.2, lines 4-10).

Referring to claim 5 and similarly recited claim 23, 39, and 42, Novakovsky discloses the method of claim 3, comprising identifying a functional part that forms said group (p.521-522, section 4; p. 523, section 6.2, lines 4-10).

Referring to claim 6 and similarly recited claim 24, Novakovsky discloses the method of claim 3, comprising determining a driving logic of said group (p. 523, section 6.2).

Referring to claim 7 and similarly recited claim 25, Novakovsky discloses the method of claim 3, comprising determining a driving control of said group (p. 523, section 6.2).

Referring to claim 8 and similarly recited claim 26, Novakovsky discloses the method of claim 3, comprising determining a stage feedback logic of said group (p. 523, section 6.2).

Referring to claim 9 and similarly recited claim 27, Novakovsky discloses the method of claim 3, comprising determining a stage feedback control of said group (p. 523, section 6.2).

Referring to claim 10 and similarly recited claim 28, Novakovsky discloses the method of claim 3, comprising determining a stage feedback type of said group (p. 523, section 6.2).

Referring to claim 11 and similarly recited claim 29, Novakovsky discloses the method of claim 3, comprising determining an asynchronous set and reset logics of said group (p. 523, section 6.2).

Referring to claim 12 and similarly recited claim 30, Novakovsky discloses the method of claim 1, comprising extracting a logical element (p. 522; section 6, lines 8-10; p. 523, section 6.3).

Referring to claim 13 and similarly recited claim 31, Novakovsky discloses the method of claim 12, comprising performing an analysis of a group of at least one Channel

Connected Sub-Network that forms at least one combinational loop and corresponds to a functional device (p. 522, section 6.2, "CCSN").

Referring to claim 14 and similarly recited claim 32, Novakovsky discloses the method of claim 12, comprising identifying a domino element (p. 523, section 6.3).

Referring to claim 15 and similarly recited claim 33, Novakovsky discloses the method of claim 12, comprising identifying a bus retainer (p. 523, section 6.3).

Referring to claim 16 and similarly recited claim 34, Novakovsky discloses the method of claim 12, comprising identifying a latch (p. 523, section 6.3).

Referring to claim 17 and similarly recited claim 35, Novakovsky discloses the method of claim 12, comprising identifying a self-reset loop (p. 523, section 6.3).

Referring to claim 18 and similarly recited claim 36, Novakovsky discloses the method of claim 12, comprising identifying a combinatorial element (p. 522; section 6, lines 8-10; section 6.1; p. 523, section 6.3).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen To whose telephone number is (571) 272-8319. The examiner can normally be reached on 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2825

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuyen To
Patent Examiner
AU 2825



VUTHE SIEK
PRIMARY EXAMINER